

Lawrence McBurney  
Cassidy and Ashton Group Ltd  
7 East Cliff  
Preston PR1 3JE

10<sup>th</sup> June 2016

Dear Lawrence

**Proposed development at Stonyhurst College, Hurst Green, Lancashire BB7 9PX**

Thank you for your request for a tree survey for bats. I understand that the survey is required to check for the presence or likely presence of bats as part of a proposal to construct a new access road at the above site.

**Background and Qualifications**

The survey was carried out by Pat Waring and Janette Gazzard.

Pat is a licensed bat worker (Class 2 licence), registered consultant of the Bat Low Impact Class Licence, a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management, with a Bachelor of Science degree in Biology.

Pat has been working as an ecological consultant for over eighteen years, most recently as Director of Ecology Services UK Limited. This work includes provision of expert advice and guidance to bodies such as Statutory Nature Conservation Organisations, Local Planning Authorities and Lancashire and Yorkshire Police Authorities, as well as the delivery of professional training courses about bats at a national level.

Pat has recognised and extensive experience and knowledge of ecological survey, monitoring, condition assessment and impact assessment techniques. He has extensive knowledge of bat ecology relating to buildings and trees including the requirements and condition necessary for bats roosting. He also has recognised skills relating to bat surveys and assessment.

Janette is a full member of Chartered Institute of Ecology and Environmental Management, with a Bachelor of Science degree in Environmental Management.

Janette has over twelve years experience working in ecology and nature conservation, including roles as a Senior Ecologist for a large multidisciplinary company and as a lead adviser for Natural England throughout the North West of England. She has a range of demonstrable skills including habitat surveys, ecological appraisals, protected species, conservation management advice and condition assessments.

Pat and Janette meet the requirements for knowledge, skills and practical experience as outlined in the CIEEM technical guidance (Chartered Institute for Ecology and Environmental Management (2013) *Competencies for Species Survey: Bats*. CIEEM, Winchester, Hants).

### **Advisory Note**

The information in this letter represents the professional opinion of an ecological consultancy and does not constitute professional legal advice. You may wish to seek professional legal interpretation of the wildlife legislation associated with this area of work.

The information, opinion and advice that Ecology Services UK Ltd has prepared are true, and have been prepared in accordance with the CIEEM Code of Professional Conduct. Ecology Services UK Ltd confirms that the opinions expressed are our true professional bone fide opinions.

### **Methodology**

The survey area was defined by Proposed Site Plan, drawing number 7744P05, dated 05-2016.

In order to assess the likelihood of bats being present within trees at the proposed development site a daytime, ground level inspection of all tagged trees and trees immediately adjacent and in close proximity within the survey area were examined on 2<sup>nd</sup> and 6<sup>th</sup> June 2016.

Observations were made from ground level as well as from telescopic 3.8 metre ladders. A 1000 lumens Led Lenser X21 torch and close-focussing Zeiss Victory FL 8x42 binoculars were also used as aids to visibility. An rigid CA-300 endoscope was used for close inspection of accessible tree cavities.

Two Anabat SD1 remote bat detectors were deployed on 2nd June 2016 for four nights to record bat activity along the route of the proposed access road.

It is recognised that limiting the survey to a single month does not take account of bat activity on the site through the whole of the active season (March/April to October) or at other times of the year.

It is recognised that whilst ground level tree inspections can be carried out any time of year the optimum time is during the winter months when potential roost features are not obscured by leaf growth.

## Results of the Surveys

### *Bats*

#### *Ground level tree inspections*

No bats or signs of bats were found during the tree inspections.

28 trees support features which are potentially suitable for use by roosting bats.

#### *Remote detectors*

Bat activity was recorded all through the night from 20 minutes after sunset to just before sunrise on all four nights, at both locations along the proposed route.

Species recorded on the remote detectors were common pipistrelle, soprano pipistrelle, noctule and myotis species.

#### *Habitats and surroundings*

The proposed access road cuts through an extensive area of mixed plantation woodland adjacent the Old Mill Buildings to the east and large formal lakes and rugby pitches to the north. Surveys by Ecology Services UK Ltd in 2015 confirmed the presence of 4 bat roosts within the Old Mill Buildings and 1 bat roost within the adjacent Old Mill Cottages. The woodland habitat and immediate surroundings (including Old Mill Buildings) offer a significant resource suitable for use by roosting, commuting and foraging bats.

The wider surroundings are dominated by areas of open farm fields, with frequent hedgerows and large blocks of broadleaved and mixed woodland. Other noteworthy features include occasional farm buildings, ponds and the River Hodder and River Ribble. The wider surroundings therefore offer significant resources suitable for use by commuting, foraging and possibly roosting bats.

There is no artificial lighting within the proposed development site, both in terms of lighting sources and light spillage. The location and spillage extent of artificial lighting varies in the immediate and wider surroundings of the survey site; however, this factor is not regarded as a potential constraint to bat activity and movement within the proposed development site or its surroundings at the current time.

### *Birds*

A number of birds were observed during the surveys, including two confirmed nest sites along the proposed road route, see table below.



Species	Behaviour recorded
Wren	Singing – <b>possible breeding</b>
Blue tit	<b>Confirmed breeding</b>
Chaffinch	Singing – <b>possible breeding</b>
Chiff Chaff	Singing – <b>possible breeding</b>
Greater spotted woodpecker	<b>Confirmed breeding</b>
Tawny Owl	Perched on T314 – <b>possible breeding</b>

The proposed development site and immediate surroundings have high potential to support a range of bird species throughout the nesting season (March to September).

#### *Other species*

Common toad was observed moving through the vegetation along part of the proposed road route.

The proposed development site and immediate surroundings have high potential to support sheltering common toad throughout the year.

The proposed development site and immediate surroundings have potential to support other protected and notable species such as other amphibians, reptiles and badgers.

### **Advice and Recommendations**

#### **Bats**

It is advised that 28 trees within and immediately adjacent the proposed access road have potential features suitable for use by bats and high levels of bat activity were recorded along the proposed route during the surveys.

It is advised that further surveys of 28 trees will be necessary to investigate potential use by bats. These surveys should include one or more of the following:

1. Pre- commencement ground level checks by an appropriately experienced and licensed ecologist, followed by immediate removal if no bats, signs of bats or bat roost are found present.
2. Aerial tree inspections of potential roost features located at height, including careful hand stripping of ivy and peeled bark features under supervision of an appropriately experienced and licensed ecologist at all times.
3. If bats or bat signs are present or if full inspection not possible, then further emergence surveys during the bat active season (May to September) will be required (as per Collins 2016).

It is advised that there are known bat roosts within the adjacent Old Mill Buildings which, depending on the exact nature of the proposed development, may be affected by the proposed development. For example if artificial lighting or other disturbing activities are proposed in the vicinity of the known roosts, further investigations will be required.

It is advised that if bats are found at any time during the development, work must stop until advice has been sought from Natural England directly or through an appropriately experienced Ecologist. If the development will affect bats, a licence may be required and suitable mitigation put in place.

### **Rationale for advice**

The survey has provided no evidence of bat roosts; however, 28 trees have potential roost features suitable for use by bats. Bats are small, opportunistic animals that may exploit a wide range of niches throughout the year.

A number of tree features are located at height and were not accessible for detailed inspections during the survey.

Bat presence has been confirmed by 2015 surveys and by use of remote detectors in 2016.

Bats and their roosts are protected under UK and European legislation. Roost sites are protected even if bats are not present at the time of the survey.

### **Nesting birds**

It is advised that nesting birds are utilising trees within and immediately adjacent the proposed development site.

It is advised that it is possible that nesting birds could also utilise buildings in close proximity (associated with Old Mill Buildings) throughout the nesting season (March to September). It is advised that breeding bird surveys should be undertaken to fully determine use by nesting birds and to identify extent of impacts and mitigation required.

It is advised that if birds are found to be nesting within or in close proximity to the work area during development works, it will be necessary to delay works or seek advice as to whether or not any development can proceed lawfully at that time. Under these circumstances, work must stop until advice has been sought from Natural England directly, or through an appropriately experienced Ecologist.

It is recommended that where possible, all efforts are made to retain, replace and manage habitat in respect of wild birds on the proposed development site at all times.

## **Rationale for advice and recommendations**

A number of bird species are very likely to occur within the proposed development site and immediate surroundings during the nesting season. The proposed access road also has potential to disturb nesting birds if they are making use of the trees and buildings in close proximity.

Under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), wild birds are protected from being killed injured or captured, while their nests and eggs are protected from being damaged destroyed or taken. In addition certain species such as the barn owls are included under Schedule 1 of the Act and are protected against disturbance while nesting and when they have dependant young. Offences against birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are subject to special penalties.

If nesting birds are present, plans will need to show how offences will be avoided during the proposed development. Work will have to be programmed around the nesting season to minimise disturbance.

There is no provision under the Wildlife and Countryside Act 1981 (as amended) for licensing the disturbance of nesting birds (other than feral pigeons) or the destruction of nests which are in use, for the purpose of development. If enforcement action were taken the developer would need to rely on the 'incidental result of an otherwise lawful operation' defence if it were not possible to avoid an offence being committed. This defence can only be tested in court and it is therefore important to ensure all possible mechanisms for avoiding an offence are considered.

Government guidance states that Local Planning Authorities have responsibilities to provide and protect habitat for wild birds, and to take steps to preserve, maintain and re-establish habitat for wild birds. These responsibilities extend to planning permissions and other consents. Local Planning Authorities will normally expect that detrimental impacts on wild birds, such as loss of nesting and feeding resources, are addressed in planning application documents.

## **Other species (and habitats)**

It is recommended that based on the nature of the proposed development, the type of habitat within and immediately adjacent and their potential to support other protected/or notable species (in addition to bat and birds) further ecological surveys and assessments may be expected by the local planning authority.



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If you require any further ecological advice or guidance in relation to the proposed development please do not hesitate to contact me.



Yours sincerely



A handwritten signature in black ink, appearing to read 'J Gazzard'.




Janette Gazzard MCIEEM  
Senior Ecologist  
Ecology Services UK Ltd  
Tel: 07842 694 618




Enc. Table of results - ground level tree inspection


Site Name: Stonyhurst – Proposed Road associated with Old Mill Buildings			Surveyors: Pat Waring & Janette Gazzard	Dates: 2/6/16 and 6/6/16
Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>No tag</p> <p>Closest tagged tree 283</p> <p>Located south side of centre line of proposed road</p>	Oak	Multiple splits and cracks at height on all sides.		<p>Tree immediately adjacent proposed route. If likely to be affected by proposed works, further checks for bats required, including a supervised aerial inspection.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>285</p> <p>Located south side of centre line of proposed road</p>	Lime	<p>No potential roost features visible due to dense epicormic growth and leaf cover.</p> <p>High potential for potential roost features to be present.</p>		<p>Winter ground level survey or supervised aerial inspection.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>293</p> <p>Located south side of centre line of proposed road</p>	Oak	<p>No potential roost features visible due to dense leaf cover.</p> <p>High potential for potential roost features to be present.</p>		<p>Winter ground level survey or supervised aerial inspection.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>



Tree Tag & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>No tag</p> <p>Located approximately 5m south of centre line</p>	<p>Rowan</p>	<p>Basal cavity with internal vertical cavity over 1 metre in length.</p> <p>Mature, entwined ivy stems growing up stem.</p>		<p>The internal cavity was checked during ground level inspection with an endoscope, no bats present but high potential for use by bats.</p> <p>Pre commencement check of cavity with endoscope at ground level and supervised hand strip of ivy stems. If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>No tag- closet tagged tree 306</p> <p>Located south side of centre line approximately 10 metres</p>	<p>Conifer species (wind thrown)</p>	<p>Lifted bark with suitable cavities in several places on the main stem.</p>		<p>Pre commencement check with endoscope. If no bats or signs of bats immediate removal under ecologist supervision.</p>



Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>No tag</p> <p>Peripheral tree south of centre line adjacent wind thrown birch</p>	<p>Birch</p>	<p>Woodpecker hole with a confirmed greater spotted woodpecker nest. This feature also has potential for use by bats. Approximately 10 metres above ground level south facing.</p>		<p>Tree immediately adjacent proposed route. If likely to be affected further checks for nesting birds and bats will be required under ecologist supervision.</p>
<p>321</p> <p>Located south side of centre line of proposed road</p>	<p>Sycamore</p>	<p>Peeled bark on main stem on all sides.</p>		<p>Pre commencement check at ground level and a supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p>



Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>No tag</p> <p>South of centre line adjacent stream in close proximity to former squash court building</p>	<p>Sycamore</p>	<p>Cavities in main stem associated with wound.</p>		<p>Supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>No tag - closest tagged tree 321</p> <p>Located south side of centre line of proposed road</p>	<p>Alder</p>	<p>Woodpecker hole with confirmed blue tit nest, approximately 10 metres above ground level, north west facing.</p> <p>Large internal cavity approximately 4 metres above ground level on main stem, north facing.</p>		<p>Tree immediately adjacent proposed route. If likely to be affected further checks for nesting birds and bats will be required.</p> <p>Lower, internal cavity was checked during ground level inspection, full inspection was not possible due to length of cavity.</p>
<p>324</p> <p>Located north side of centre line of proposed road</p>	<p>Alder</p>	<p>Woodpecker hole associated with branch tear feature approximately 14 metres above ground level, south east facing.</p>		<p>Supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>


Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>No tag – closest tagged tree 313</p> <p>Located north side of centre line of proposed road</p>	<p>Beech</p>	<p>Wound on main stem, missing bark with possible cavities associated with bark re-growth, located approximately 6 metres high, east facing.</p>		<p>Supervised aerial inspection and careful strip of tree growth.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision .</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>No tag – closest tagged tree 311</p> <p>Located north side of centre line of proposed road</p>	<p>Conifer species (wind thrown and adjacent standing dead wood)</p>	<p>Peeled and lifted bark - temporary roosting feature.</p>		<p>Pre commencement check with endoscope.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p>
<p>310</p> <p>Located north side of centre line of proposed road</p>	<p>Beech</p>	<p>Wound in main stem approximately 15 metres high, east facing, cavities associated with bark re-growth.</p>		<p>Supervised aerial inspection and careful strip of tree growth.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>


Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>316</p> <p>Located north side of centre line of proposed road</p>	<p>Oak</p>	<p>Large wound in main stem approximately 3 metres above ground level, north elevation. Other parts of tree not visible due to dense epicormic growth and leaf cover.</p> <p>High likelihood of potential roost features being present.</p>		<p>Winter ground level survey or supervised aerial inspection.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>310</p> <p>Located north side of centre line of proposed road</p>	<p>Beech</p>	<p>Wound approximately 15 metres above ground level, east facing. Possible cavity associated with bark re-growth</p>	<p>No image available</p>	<p>Supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>309</p> <p>Located north side of centre line of proposed road</p>	<p>Beech</p>	<p>Wound on side limb, approximately 6 metres high, north facing.</p> <p>Cavity on main stem, approximately 8 metres high, north facing.</p>	<p>No image available</p>	<p>Supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>

Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>308</p> <p>Located north side of centre line of proposed road</p>	<p>Beech</p>	<p>Wounds on main stem, lifted bark, cavities and union features at height, all sides</p>	<p>No image available</p>	<p>Supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>No tag – closest tagged tree 308</p> <p>Located north side of centre line of proposed road</p>	<p>Conifer species (group of wind thrown and hung up Conifer trees)</p>	<p>Peeled and lifted bark present on all specimens.</p>		<p>Features checked with endoscope during survey, not bats found but potential for bats to be present at other times.</p> <p>Pre commencement check at ground level and a supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p>
<p>No tag – closest tagged tree 305</p> <p>Located north side of centre line of proposed road</p>	<p>Conifer species</p>	<p>No potential roost features visible due to dense ivy growth but there is potential for roost features to be present</p>		<p>Pre commencement check at ground level and a supervised aerial inspection and careful strip of ivy.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p>

Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>No tag – closest tagged tree 302</p> <p>Located north side of centre line of proposed road</p>	<p>Sycamore</p>	<p>Several internal cavities associated with main stem on all sides.</p>		<p>The majority of the cavities are too small to be checked with an endoscope but the larger basal cavity was checked with the endoscope during the survey. Possible accumulation of old bat droppings in base of this feature, no bats found present but high potential for use by bats.</p> <p>Pre commencement check, if no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>
<p>302</p> <p>Located north side of centre line of proposed road</p>	<p>Alder</p>	<ol style="list-style-type: none"> <li>1. Cavity in main stem, approximately 4 metres above ground level, north facing.</li> <li>2. Cavity in side limb associated with branch tear, approximately 8 metres above ground level, north facing.</li> <li>3. Cavity associated with shattered limb approximately 10 metres above ground level, north west facing.</li> </ol>		<p>Supervised aerial inspection of all potential roost features.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p> <p>If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).</p>

Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
299 Located north side of centre line of proposed road	Alder	Wound in main stem with cavity associated with bark re-growth. Approximately 15 metres above ground level, east facing.	No image available	Supervised aerial inspection.  If no bats or signs of bats immediate removal under ecologist supervision.  If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).
296 Located north side of centre line of proposed road	Oak	<ol style="list-style-type: none"> <li>1. Spilt in dead side limb approximately 8 metres above ground level, east facing.</li> <li>2. Spilt in side limb approximately 15 metres above ground level.</li> <li>3. Cavity above dead side branch approximately 20 metres above ground level, north facing.</li> </ol>		Supervised aerial inspection of all potential roost features.  If no bats or signs of bats immediate removal under ecologist supervision.  If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).
291 Located north side of centre line of proposed road	Oak	<p>No potential roost features visible due to dense epicormic growth and leaf cover.</p> <p>High likelihood of potential roost features being present.</p>		Winter ground level survey or supervised aerial inspection.  If bats or bat signs present or if full inspection not possible, then further surveys will be required (as per Collins 2016).

Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>344</p> <p>Located adjacent former squash court building east of stream</p>	<p>Rowan</p>	<p>No potential roost features visible due to dense ivy growth but there is potential for roost features to be present.</p>		<p>Pre commencement check at ground level and a supervised aerial inspection and careful strip of ivy.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p>
<p>337</p> <p>Located adjacent former squash court building east of stream</p>	<p>Sycamore</p>	<p>Wound on main stem with upwards cavity and lifted bark, approximately 0.5 metres above ground level, east facing.</p>		<p>Cavity checked with endoscope during survey, no bats found but potential for bats to be present at other times.</p> <p>Pre commencement check at ground level, if no bats or signs of bats immediate removal under ecologist supervision.</p>
<p>335</p> <p>Located adjacent former squash court building east of stream</p>	<p>Alder</p>	<p>No potential roost features visible due to dense leaf growth from adjacent sycamore, but there is potential for roost features to be present.</p>	<p>No image available</p>	<p>Winter ground level survey or supervised aerial inspection.</p> <p>If no bats or signs of bats immediate removal under ecologist supervision.</p>

Tree Ref & Location	Species	Potential Bat Roost Features	Photograph	Action Required/Additional Notes
<p>339</p> <p>Located adjacent former squash court building east of stream</p>	<p>Oak</p>	<p>Hollow in main stem with upwards cavity, approximately 4 metres above ground level, south east facing.</p>		<p>Feature was too narrow to be checked with endoscope during the survey.</p> <p>Pre commencement check with alternative equipment. If full inspection not possible, then further surveys will be required (as per Collins 2016).</p>

Reference: Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1